Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

# ENVIRONMENTAL ASSESSMENT
**For Routine Actions with Limited Environmental Impact**

Note: Instructions to DNRC staff for preparing this EA can be found at: http://www.dnrc.state.mt.us/eis_ea.html

## Part I. Proposed Action Description

1. *Applicant/Contact name and address*: Randall J. & Kathleen M. Bryant
1667 Sleeping Child Rd.
Hamilton, MT 59840

2. *Type of action*: Application To Change A Water Right 76H 30018938

3. *Water source name*: Sleeping Child Creek

4. *Location affected by project*: NENESE of Section 32, T05N, R20W, Ravalli County.

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:

The Bryants submitted an Application to Change a Water Right to DNRC to change the point of diversion used for their Sleeping Child Creek irrigation water right. The old point of diversion consisted of a headgate and ditch that diverted water from Sleeping Child Creek at a point in the NWNWSW of Section 33, T05N, R20W. The new point of diversion will consist of a pump placed directly into the stream in the NENESE of Section 32, T05N, R20W. Historically, the applicant and their predecessors diverted up to 134.64 gallons per minute (gpm) of water for irrigation of 12 acres in the N2NESE of Section 32, T05N, R20W. If the change in water use is authorized, the amount of water diverted from the stream and the acreage irrigated will remain the same.

*6.* *Agencies consulted during preparation of the Environmental Assessment: (include agencies with overlapping jurisdiction)*

Montana Historical Society
Montana Natural Heritage Program
Department of Fish, Wildlife and Parks Website
DEQ 303(d) Impaired Stream list

## Part II. Environmental Review

### 1. Environmental Impact Checklist:

## PHYSICAL ENVIRONMENT

**WATER QUANTITY, QUALITY AND DISTRIBUTION**

***Water quantity*** *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The Montana Department of Fish, Wildlife and Parks does not list Sleeping Child Creek as chronically or periodically dewatered (2005 list). The proposed change of water use will not affect the amount of water flowing in Sleeping Child Creek because the applicant will be limited to the historical flow rate diverted from the stream. The proposed change also has a water savings element that may improve stream flow conditions in Sleeping Child Creek. Historically, water was diverted into an open ditch where the applicant had a pump at the end of the ditch. This allowed for water losses due to evaporation and seepage that will be eliminated by abandoning the ditch and pumping directly from the stream.

*Determination*: No impact.

***Water quality*** *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

DEQ lists Sleeping Child Creek as water quality impaired. Sleeping Child Creek fully supports agriculture and partially supports aquatic life, cold water fisheries and recreation. Causes of water quality impairment are nutrients, siltation and thermal modifications. The source of water quality impairment is agriculture. The proposed project should not worsen these conditions, although the agricultural use of the water right being changed may contribute. Conditions will not worsen if DNRC authorizes the change in water use because the applicant will no longer divert water through the headgate and ditch system, which historically was operated the entire irrigation season to provide water to a pump site at the end of the ditch. Irrigation diversions will now occur only when the water is needed and being used. When the applicant is not irrigating, there will be no diversion out of Sleeping Child Creek. This may increase the amount of water flowing in the stream. There should be no increased siltation of the stream since there will be no construction required to install the new point of diversion. The applicant's pump will be placed on the streambank away from the stream, and only a 3 inch pipe with a foot valve will be placed in the stream. Further, the proposed change if authorized will not allow the applicant to use more water than historical practices.

*Determination:* No significant impact.

***Groundwater*** *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The proposed project only involves the diversion of surface water for irrigation. There may be a decrease in groundwater recharge if the open ditch is abandoned, however, due to the close proximity of the ditch to Sleeping Child Creek, the majority of ditch seepage most likely ended up back into the stream without recharging the groundwater aquifer.

*Determination*: No impact.

**DIVERSION WORKS** - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The means of diversion consists of a 3 hp electric pump, 3 inch mainline and foot valve placed directly into the stream. Water will be conveyed to the place of use via a 3 inch mainline that supplies a sprinkler irrigation season. Since there will be no construction or ground disturbance required to install the pump and mainline, there will be no impacts to stream channel morphology or riparian areas. The project does not involve damming the stream and there will be no impact to groundwater that may impact well construction. The foot valve is small enough that it will not create a barrier to fish migration. The water right was historically used and will continue to be used. The authorization to change the water right will not allow more water to be diverted than the historic practice therefore there should be no flow modification

*Determination*: No impact.

**UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program was contacted to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern", that could be impacted by the proposed project.

The following sensitive plant and animal species occur within Township 05 North, Range 20 West: Bull Trout, Westslope Cutthroat Trout, Olive-sided Fly Catcher and Townsend's Bat. The following sensitive plant species were identified; Palish Sedge.

The project should not affect Lynx populations because the project location is not within preferred habitat types. Lynx prefer mature and/or dense stands of Lodgepole Pine, Douglas Fir, Englemann Spruce and Subalpine Fir forests with well developed understories. The applicant's property is river bottom developed for agriculture and residential use.

Since the proposed change of water use should not decrease stream flows in Sleeping Child Creek, or create any barriers to fish migration, Bull Trout and Westslope Cutthroat Trout should not be impacted.

The project will not require any construction or ground disturbance, nor will it increase the acres irrigated using this water right. Since there will be no ground disturbance, sensitive plant species like Palish Sedge will not be impacted.

*Determination*: No significant impact.

***Wetlands*** **-** *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

The project does not involve any wetlands. Riparian habitat along Sleeping Child Creek will not be impacted.

*Determination*: No impact.

***Ponds*** **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

The project does not involve any ponds.

*Determination*: No impact.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

The project does not require any construction or ground disturbance that may impact soil quality or stability. The irrigated pasture consists of Gallatin Silt Loam. These soils are not high in salts that contribute to saline seep. Irrigation water will be applied by sprinkler, and will be controlled to prevent erosion caused by over watering.

*Determination*: No impact.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

There will be no impact to existing vegetative cover. The existing vegetative cover consists of pasture grass. The installation of a new pump site will not alter vegetative cover, as the vegetation receives irrigation water, and is already controlled by the applicant through agricultural practices. The applicant will be responsible for controlling noxious weeds on their property.

*Determination*: No significant

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

No source of increased air pollutants was identified.

*Determination*: No impact.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

The Montana Historical Society has determined that there are no known historical and/or cultural sites that will be impacted as a result of this project.

*Determination*: No impact.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

*Determination*: None identified.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination*: No impact.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The project site is private property with no public recreation activities.

*Determination*: No impact.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

*Determination*: No impact.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**XX**__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination*: No impact.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

*(a) Cultural uniqueness and diversity?* No impact.

(*b) Local and state tax base and tax revenues?* No impact.

*(c) Existing land uses?* No impact.

(*d) Quantity and distribution of employment?* No impact.

*(e) Distribution and density of population and housing?* No impact.

*(f) Demands for government services?* No impact.

*(g) Industrial and commercial activity?* No impact.

*(h) Utilities?* No impact.

*(i) Transportation?* No impact.

*(j) Safety?* No impact.

*(k) Other appropriate social and economic circumstances?* No impact.

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts None identified.

Cumulative Impacts None identified.

**3. *Describe any mitigation/stipulation measures:*** None identified.

**4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** None identified.

*PART III. Conclusion*

***1. Preferred Alternative*** None identified.

***2 Comments and Responses***

**3. *Finding:***

*Yes___ No_**XX**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

*If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action:*

AN EA IS THE APPROPRIATE LEVEL OF ANALYSIS FOR THE PROPOSED ACTION BECAUSE NO SIGNIFICANT IMPACTS WERE IDENTIFIED.

*Name of person(s) responsible for preparation of EA:*

*Name:* Jim Nave
*Title:* Water Resource Specialist
*Date*: 7/20/2006